



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,272	02/11/2005	Henrik Knobel	43315-213809	9951
26694	7590	10/18/2007		
VENABLE LLP P.O. BOX 34385 WASHINGTON, DC 20043-9998			EXAMINER PRAKASAM, RAMYA G	
			ART UNIT 3651	PAPER NUMBER
			MAIL DATE 10/18/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/524,272

Applicant(s)

KNOBEL ET AL.

Examiner

Ramya G. Prakasam

Art Unit

3651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-21 is/are pending in the application.
- 4a) Of the above claim(s) 3-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/6/2007 has been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

Claim Rejections - 35 USC § 103

3. Claims 11-21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sager et al. (U.S. Patent No. 5,040,056).

Sager et al. '056 disclose an automated picking system and method per claimed invention. The method comprises defining plurality of objects in an operation area using a camera 12 (Figure 1). The method comprises determining information regarding the objects comprising size, position, speed, and orientation. The method comprises storing the object and its location in a computer. The method comprises selecting an object to be picked from the plurality of objects. The method comprises defining a transport direction for all objects in the operation area. The method comprises defining a picking passageway along the transport direction, i.e. defining respective robot pick areas. The method comprises defining object's penetration into a predetermined boundary. Wherein, the method of defining the object's penetration, at least obviously if not inherently, involves a calculating step. The method comprises selecting an

Art Unit: 3651

object from the plurality of objects for which the passageway is free from penetration. The method comprises selecting optimal objects based upon the speed of the objects.

In regards to claims 13 and 18, it is obvious that the objects are picked without disturbing other objects.

In regards to claims 14-16, it is obvious that Sager et al. '056 robots could be programmed and designed to move the picked objects in any selected directions including horizontally, vertically, or in a circular motion. Such modification is commonly well known within the robotic environment.

In regards to claim 20, it is obvious that Sager et al. '506 system could be modified to circulate the unpicked objects through the operation area so that they could be picked in the next conveying path. Providing circulating closed loop conveyor to a sorting system is commonly well known in the art.

In regards to claim 21, Figure 1 shows that the transport direction and the flow direction can be perpendicular to each other.

Response to Arguments

4. Applicant's arguments filed 9/6/2007 have been fully considered but they are not persuasive.

With regards to applicant's argument that Sager fails to disclose a method for selecting an object out of a plurality of objects moving in a flow direction in an operation area, by virtue of the fact that all objects are moving in a transport direction as indicated by the arrow in Figure 1, a transport direction is in fact defined. Further, an object is selected based on their arrangement

with regards to the vision windows (See Column 2, lines 56-68), therefore this limitation is in fact defined.

With regards to applicant's argument that Sager does not disclose defining a passageway along the transport direction of each of a plurality of moving objects, a 'passageway' can be defined as simply "a way that permits passage". WEBSTER'S II DICTIONARY 519 (3rd ed. 2005). In this particular case, the vision window region permits passage, therefore this limitation is met. Sager further discloses a system that utilizes wedge shaped devices for the purpose of channeling, thereby providing a passageway (See Column 8, lines 62-66).

With regards to applicant's argument that Sager does not disclose selecting an object from the plurality of moving objects for which the defined passageway is free from penetration of any other of the plurality of objects, the cameras, therefore vision region remains stationary. Therefore, if the object is not within the passageway, there is no way that it can penetrate the passageway. Therefore, this limitation is met.

With regards to applicant's argument that Sager does not provide any reason that objects should be picked without disturbing other objects, it is obvious that other objects are not manipulated, or disturbed, when choosing which objects pass through the passageway (i.e. vision window).

For the foregoing reasons, the claims stand rejected.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 3651

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramya G. Prakasam whose telephone number is (571) 272-6011.

The examiner can normally be reached on Monday - Thursday, 8:30am-7pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

10/15/2007
RGP


GENE O. CRAWFORD
SUPERVISOR, PATENT EXAMINER